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## CLAIMS

5 *Subcat B*

1. A device for treatment of mitral annulus dilatation, comprising an elongate body (8; 8'; 8'') having such dimensions as to be insertable into the coronary sinus (5) and having two states, in a first of which the elongate body (8; 8'; 8'') has a shape that is adaptable to the shape of the coronary sinus (5), and to the second of which the elongate body (8; 8'; 8'') is transferable from the said first state assuming a reduced radius of curvature, whereby the radius of curvature of the coronary sinus (5) is reduced as well as the circumference of the mitral valve annulus (6), when the elongate body (8; 8'; 8'') is positioned in the coronary sinus (5).

15 2. A device according to claim 1 further comprising means (9; 22; 26, 27) for the transfer of the elongate body (8; 8'') to the second state by bending and shortening it from a larger radius of curvature to a smaller radius of curvature.

20 3. A device according to claim 2, wherein said transfer means (9; 22; 26, 27) comprises means for bending and shortening the elongate body (8) by a contraction thereof.

25 4. A device according to claim 1, wherein the elongate body (8; 8') comprises a memory material providing the transfer to the second state.

5. A device according to claim 1 or 2, wherein the elongate body (8) comprises a stent.

30 6. A device according to claim 2, wherein the elongate body (8'') comprises several stent sections (23-25) and said bending means (9; 22; 26, 27) comprises wires (26, 27) for shortening the distance between the stent sections.

35 7. A method of reducing the circumference of the mitral valve annulus, comprising inserting an elongate body (8; 8'; 8'') into the coronary sinus (5) in the vicinity of the posterior leaflet (2) of the mitral

valve, and providing a bending and shortening of the elongate body (8; 8'; 8'') when positioned in the coronary sinus (5) so as to reduce the curvature of the coronary sinus (5) and thereby reduce the circumference of the mitral valve annulus (6).

8. A method according to claim 7, wherein said bending and shortening of the elongate body (8; 8'') is provided by a contraction thereof.

9. A method according to claim 7 or 8, wherein a memory material is used in the elongate body (8') for providing the transfer to the second state.

10. A method according to claim 7 or 8, wherein the elongate body (8'') is made from several stent sections (23-25) and wires (26, 27) are used for shortening the distance between the stent sections (23-25) in order to bend the elongate body (8'').